

## **REMARKS**

The following remarks are fully and completely responsive to the Office Action dated November 1, 2005. Claims 1-6 and 10-15 are pending in this application, with claims 7-9 canceled and new claims 10-15 added by the present amendment. In the outstanding Office Action, claims 1-9 were rejected under 35 U.S.C. § 102(b). No new matter has been added. Claims 1-6 and 10-15 are presented for consideration.

### **35 U.S.C. § 102(b)**

Claims 1-9 were rejected under 35 U.S.C. § 102(b) as being anticipated by Mazelsky et al. (U.S. Patent No. 3,224,265, "Mazelsky"). The cancellation of claims 7-9 renders moot the rejection of these claims. In making this rejection, the Office Action asserts that this reference teaches each and every element of the claimed invention.

Claim 1 recites in part:

...an elastic spar that simulates an elasticity of an actual wing;...and

connecting means for connecting the wing elements to the elastic spar, the connecting means being disposed within the wing elements, wherein the connecting means are interior to an exterior surface of the test wing.

Independent claim 4 recites in part:

...an elastic spar that simulates an elasticity of an actual wing;

...wherein each of the plurality of wing elements are fitted around the elastic spar, and each of the plurality of engaging members are engaged with each of the plurality of anchor members via a passage in each of the plurality of wing members, the passage passing through each of the plurality of wing members from a wing tip side and is disposed within an interior of an exterior surface of the actual wing.

The Office Action asserts that Mazelsky discloses an elastic spar that simulates an elasticity of an actual wing at column 2, lines 6-8, and in Fig. 1.

Mazelsky, however, at column 2, lines 6-8, recites:

FIGURE 1 is a plan view of a sample half-span delta wing model adapted to be mounted inside of a wind tunnel;

Figure 1 is described in detail beginning on column 2 at line 48. This description recites:

Referring now to FIGURE 1 of the drawings, a typical wing model which in the drawing comprises a half-span 70° delta wing 10 is, in this particular embodiment, formed from three separate elements, section 14 and flaps 12, and 16....

Mazelsky at column 2, lines 6-8 and in the detailed description of Figure 2, fails to identify any portion of delta wing 10 as being an elastic spar that simulates an elasticity of an actual wing. Furthermore, wind tunnel test models used to identify aerodynamic coefficients are typically rigid in order to maximize the accuracy of the aerodynamic coefficients obtained.

Consequently, the Office Action has failed to make a *prima facie* case since neither the Office Action nor the cited reference (Mazelsky) specifically identify any portion of delta wing 10 that is an elastic spar that simulates an elasticity of an actual wing. Consequently, Mazelsky fails to teach and/or suggest the elastic spar recited in independent claim 1 or the claims dependent thereon.

It appears that the Office Action deems hinge blocks 22, 28 as corresponding to the claimed connecting means. However, these hinge blocks 22, 28 are apparently disposed outside the external surface of the wing 10.

Consequently, Mazelsky fails to teach and/or suggest the connecting means for connecting the wing elements to the elastic spar, the connecting means being disposed within the wing elements, wherein the connecting means are interior to an exterior surface of the test wing as recited in independent claim 1 or the claims dependent thereon.

The Office Action also asserts that Mazelsky, in Fig. 1, column 2, lines 58-68, and column 3, lines 15-18, teaches a wing element being fitted around the elastic spar.

Mazelsky, at column 2, lines 58-68 recites:

Conventional force balances 18 and 20 are secured to flaps 12 and 16 by means of suitable hinge blocks 22 and 24. In addition, a force balance 26 is secured to section 14 by hinge block 28. In this way the flaps 12 and 16 and section 14 can be removed and replaced for reasons to become apparent below, without disturbing the sensitive balances.

Balances 18 and 20 are positioned on a line chord which passes through the centroids or chordwise center of gravity of flaps 12 and 16, respectively, for reasons to be discussed below.

Mazelsky, at column 3, lines 15-18 recites:

As shown in FIGURE 1, balance 18 is mounted on an arm 30 which is secured to section 14. Similarly, balance 20 is also supported on section 14. As a result, section 14 serves as a common support or base for flaps 12 and 16.

Section 14 and flaps 15 and 16 appear to be portions of delta wing 10. However, section 14 and flaps 12 and 16 are not shown as being fitted around an elastic spar.

Claim 4 specifically defines that a passage in each of a plurality of wing members, via which each of engaging members is engaged with a corresponding anchor member, passes through each wing member from a wing tip side and is

disposed within an interior of an exterior surface of the actual wing. Such passage is typically shown by reference numeral 19 in Fig. 5 where a bolt 21 as an engaging member is engaged with a corresponding anchor member 16. The left side of wing member 14 is the “wing tip side”.

In contrast, if bolts, not numbered, which are associated with hinge blocks 22, 28 of the reference should be deemed as claimed “engaging members”, then they would pass through a passage that extends perpendicularly to the span direction of wing 10. A passage passing through a wing member from a wing tip side, however, is not taught or suggested in Mazelsky et al.

Consequently, Mazelsky fails to teach and/or suggest the invention recited in independent claim 4 and the claims dependent thereon.

Mazelsky fails to teach and/or suggest the claimed invention. Regarding independent claim 1 and the claims dependent thereon, this reference fails to teach and/or suggest an elastic spar that simulates an elasticity of an actual wing. Mazelsky also fails to teach and/or suggest the recited connecting means for connecting the wing elements to the elastic spar, the connecting means being disposed within the wing elements, wherein the connecting means are interior to an exterior surface of the test wing. Regarding independent claim 4 and the claims dependent thereon, Mazelsky fails to teach and/or suggest an elastic spar that simulates an elasticity of an actual wing. This reference also fails to teach and/or suggest that each of the plurality of wing elements is fitted around the elastic spar. This reference also fails to teach and/or suggest that each of the plurality of engaging members are engaged with each of the plurality of anchor members via a passage in each of the plurality of wing members, the

passage passing through each of the plurality of wing members from a wing tip side and is disposed within an interior of an exterior surface of the actual wing. Therefore, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1-6 under 35 U.S.C. § 102(b).

### **New Claims**

New claims 10-15 have been added to further claim the present invention. These claims are allowable for at least the reasons set forth above. Therefore, Applicant requests consideration of new claims 10-15.

### **Conclusion**

Applicant's remarks have overcome the rejection set forth in the Office Action dated November 1, 2005. Specifically, Applicant's remarks have distinguished claims 1-6 from Mazelsky and thus overcome the rejection of claims 1-6 under 35 U.S.C. § 102(b). Applicant's remarks have also distinguished new claims 10-15 from the cited prior art. Accordingly, claims 1-6 and 10-15 are in condition for allowance. Therefore, Applicant respectfully requests consideration and allowance of claims 1-6 and 10-15.

Applicant submits that the application is now in condition for allowance. If the Examiner believes the application is not in condition for allowance, Applicant respectfully requests that the Examiner contact the undersigned attorney by telephone if it is believed that such contact will expedite the prosecution of the application.

In the event that this paper is not considered to be timely filed, Applicant respectfully petitions for an appropriate extension of time.

The Commissioner is authorized to charge payment for any additional fees which may be required with respect to this paper to our Deposit Account No. 01-2300, making reference to attorney docket number 107348-00174.

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